

WHAT IS CLAIMED IS:

1. A filter of a smoking article comprising catalytically active carbon impregnated with at least one heavy metal.
2. A filter of a smoking article as in claim 1 further including sulfur or nitrogen ligation of the at least one incorporated metal contained within the active carbon.
3. A method of improving the activity of carbon comprising the steps of introducing catalytically active sites to carbon by heat treatment in the presence of heavy metals and nitrogenous or sulfurous materials.
4. A method as in claim 3 wherein the heat treatment is carried out in the range of 500 to 1000°C.
5. A method as in claim 3 wherein the active carbon has enhanced catalytic activity for the oxidation of hydrogen sulfide, sulfur dioxide, phosphine and/or arsine.
6. A method of filtering smoke of a smoking article including the steps of establishing a flow of mainstream tobacco smoke, passing the mainstream tobacco smoke through a filter comprising catalytically active carbon impregnated with at least one heavy metal, and selectively oxidizing or absorbing selected gas phase components from the smoke.
7. A smoking article comprising a tobacco rod and a filter element including catalytically active carbon impregnated with at least one heavy metal.
8. An activated carbon comprising catalytically active carbon impregnated with at least one heavy metal.

9. An activated carbon as in claim 8 wherein the heavy metal is selected from the group consisting of Mg, Al, Si, P, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Y, Zr, Nb, Mo, La, Ce, other lanthanides, Hf, Ta, W, Pb and Bi.

10. An activated carbon as in claim 8 including catalytically active carbon produced by heat treatment of carbon in the presence of heavy metals and nitrogenous or sulfurous materials.

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